R E P O R T R E S U M E S

ED 017 986 EA 001 177

THE ECONOMICS OF HIGHER EDUCATION.

BY- HARRIS, SEYMOUR E.

PUB DATE 67

EDRS PRICE MF-$0.25 HC-$0.68 15P.

DESCRIPTORS- *ECONOMICS, *HIGHER EDUCATION, *EDUCATIONAL FINANCE, EXPENDITURES, INCOME, *FINANCIAL SUPPORT, SCHOLARSHIPS, *FINANCIAL PROBLEMS, COSTS, TUITION, FEDERAL AID, STATE AID, PRIVATE FINANCIAL SUPPORT, COLLEGE ATTENDANCE, FONTANA,

THIS ARTICLE DISCUSSES THE TRENDS AND THE RISING PROBLEMS IN THE FINANCING OF HIGHER EDUCATION. SPECIFIC TOPICS DISCUSSED INCLUDE--THE RELATIONSHIP BETWEEN EXPENDITURES ON EDUCATION AND NATIONAL INCOME, THE DETERMINANTS OF EXPENDITURES ON EDUCATION, THE TREND IN DIRECT SUBSIDIES VERSUS SCHOLARSHIPS, THE FINANCIAL PRESSURES ON PUBLIC INSTITUTIONS OF HIGHER LEARNING, THE RELATIVE COSTS OF PUBLIC AND PRIVATE INSTITUTIONS OF HIGHER LEARNING, THE SOURCES OF THE FINANCING OF HIGHER EDUCATION, THE CONTRIBUTION OF TUITION TO EDUCATIONAL FINANCE, AND THE USE OF PUBLIC MONEY FOR FINANCING HIGHER EDUCATION. THIS PAPER WAS PRESENTED AT THE COLLEGE SCHOLARSHIP SERVICE COLLOQUIUM ON FINANCIAL AID (3D, FONTANA, WISCONSIN, MAY 22-25, 1966) AND THE COMPLETE DOCUMENT, OF WHICH THIS IS ONE PAPER, "THE ECONOMICS OF HIGHER EDUCATION," IS AVAILABLE FOR $2.00 FROM THE COLLEGE ENTRANCE EXAMINATION BOARD, PUBLICATIONS ORDER OFFICE, BOX 592, PRINCETON, NEW JERSEY 08540. (HW)

1966 Colloquium — College Scholarship Service

The Economics of Higher Education

ED017986

EA 001 177

The Economics of Higher Education

Papers Presented at the Third College Scholarship Service Colloquium on Financial Aid, May 22–25, 1966, Held at The Abbey on Lake Geneva, Fontana, Wisconsin

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

College Entrance Examination Board
New York, 1967

Additional copies of this book may be ordered from College Entrance Examination Board, Publications Order Office, Box 592, Princeton, New Jersey 08540. The price is $2 per copy.

Editorial inquiries regarding this book should be addressed to Editorial Office, College Entrance Examination Board, 475 Riverside Drive, New York, New York 10027.

"PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY Therese A. Furlong

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE U.S. OFFICE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."

Copyright © 1967 by College Entrance Examination Board. All rights reserved.

Library of Congress Catalog Card No.: 67-27896

Printed in the United States of America

Contents

Authors iv

Foreword
Graham R. Taylor v

Introduction
James L. Bowman vii

The economics of higher education
Seymour E. Harris 1

Pricing problems for higher education
Allan M. Cartter. 6

Student diversity and national goals in higher education
Fred L. Glimp 18

Investment in higher education and its returns
W. Lee Hansen 29

The federal interest in educational opportunity
Peter P. Muirhead 35

Higher education: State and local governments
Selma J. Mushkin 41

Aiding higher education through income tax credits
Roger A. Freeman 50

An argument against tax credits in higher education
H. Edwin Young. 63

Long-term credit: Implications for colleges and universities
Jack B. Critchfield 65

Monetary policy and the financing of higher education
Eliot J. Swan 71

Student aid: Will Uncle Sam make all the ends meet?
Robert N. Kreidler. 80

Authors

Allan M. Cartter
Chancellor
New York University

Jack B. Critchfield
Dean of Admissions and Financial Aid
University of Pittsburgh

Roger A. Freeman
Senior Staff Member
Hoover Institution on War, Revolution, and Peace

Fred L. Glimp
Dean of Admissions and Financial Aids
Harvard College

W. Lee Hansen
Associate Professor of Economics
University of Wisconsin at Madison

Seymour E. Harris
Professor of Economics
University of California at San Diego

Robert N. Kreidler
Vice President
Alfred P. Sloan Foundation

Peter P. Muirhead
Associate Commissioner for Higher Education
United States Office of Education

Selma J. Mushkin
Project Director
State-Local Finances Project
George Washington University

Eliot J. Swan
President
Federal Reserve Bank of San Francisco

H. Edwin Young
President
University of Maine

Foreword

In 1962 the College Scholarship Service held its first colloquium on student aid. Because of the long-standing concern of the CSS about gaining the maximum effect from a given amount of aid available, the CSS planned and conducted that Colloquium during both sessions of the Eighty-Seventh Congress. At that time aid to education bills, including a federal scholarship bill, were pending before Congress, but it was just before the time in America's history when Americans and the Congress were ready to back up the goal of equal access to higher education – not only with money, but, more important, with the moral support and commitment reflected in the dollar support.

In 1962 the federal government was in the student aid field primarily through the National Defense Student Loan Program. Since that program was enacted in 1958 as part of the defense-focused reaction to the new space age, federal appropriations for it have grown from an initial $57 million in 1959–60 to more than $190 million. The Congress added a work program in 1964 as part of the Economic Opportunity Act and, finally, a grant program under the Higher Education Act of 1965 to complete the three-part federal program of student aid at the undergraduate level. These new programs have already added $200 million annually to the available resources for financial aid. When they are fully operative in 1969–70, they will contribute approximately $400 million and bring the total federal support for these three programs to almost $600 million.

State governments have entered the student aid field in an accelerated fashion over the past 10 years; 17 states now have competitive scholarship programs open to candidates, without restriction as to field of study. Of these 17 programs, all but New York's have been established since 1956 (New York enacted the first program of this kind in 1913 – the New York State Regents College Scholarship Program). And 9 of the 17 state programs have been established since 1963. Under these 17 programs, more than $100 million is available annually to roughly 300,000 students. When these funds are added to the $600 million from the three federal programs, the public share of the total student budget for college attendance will be greatly in excess of what it was five or even three years ago. In addition, the potential of the permanent GI Bill adds substantial funds, possibly $400 million a year, to these figures, depending on the extent to which veterans avail themselves of this opportunity.

Concurrent with this significant increase in public responsibility for student expenses, a number of other trends have been noticeable. First, and most important, the number and the percentage of students enrolled in public institutions of higher education have increased markedly, in comparison with enrollment in private institutions of higher education. In 1959–60, for example, enrollments were 1,474,000 in private and 2,136,000 in public colleges and universities. In 1964–65, the respective numbers were 1,916,000 and 3,655,000. This trend shows no sign of reversal and leads to some major questions about national policy.

It was in this context that the College Scholarship Service decided in 1965 to hold its third colloquium on the topic, "The Economics of Higher Education." The concern of this Colloquium, and an ongoing concern of

the 860 institutions that make up the membership of the College Scholarship Service Assembly is the pattern for the financing of higher education, including the pattern of attendance. To what degree are the problems of cost and facilities solved by the increasing pattern of public attendance – especially attendance in community colleges free of the financial burdens of construction, housing facilities, and housing fees to students? Even if the growth of these institutions solves certain financial problems, what is the cost in diversity, in student choice, and in the role of the private institution?

Even if some agreement can be reached in national policy about the respective roles of private and public institutions, what patterns can be agreed upon for the cost of college attendance to students? What percentage of the total institutional cost should the student bear in public institutions as well as in private institutions? What level of cost differential between the private and public institutions will the general public support? How high can the cost for the undergraduate years, grades 13 to 16, be set in a society that heavily subsidizes all other levels of education? If more public support were to be made available to private institutions, how can their independence be preserved?

These are difficult questions that must be faced and answered as America passes into the last third of the twentieth century. And this Colloquium was planned and held in an effort to help national thinking in finding the answers to some of these questions. It is the hope of those who planned the Colloquium that the published papers will stimulate some thinking about these key questions.

I want to take this opportunity to thank James L. Bowman for his work in directing the Colloquium. At the time of the Colloquium, Mr. Bowman was director of financial aid at Johns Hopkins University. He is now associate program director of the College Scholarship Service at Educational Testing Service, Princeton, New Jersey. I also want to thank the 12 speakers who, through their papers and in discussions, contributed much to this ongoing debate. The CSS hopes that these papers will prove valuable to the groups and commissions that have been established to study the structure of higher education in this country.

GRAHAM R. TAYLOR
Associate Director
College Scholarship Service

May 1967

Introduction

Reflecting on the Colloquium at which the papers in this volume were presented, I am reminded of a passage from Lewis Carroll's great children's classic:

" 'Will you tell me which way I ought to go from here?'
'Depends on where you want to get to,' replied the Cheshire cat.
'Well, I really don't very much care,' replied Alice.
'Then, it doesn't matter much which way you go,' said the cat."

For when looking at an area as broad as "The Economics of Higher Education," one can very readily feel like Alice. However, with the assistance of a very able advisory committee, the Colloquium planners were able to ascertain where they intended to go.

As envisaged by the planners of the meeting, the Colloquium was intended to deal broadly with the question of the most effective methods of financing higher education, and with the role and problems of the educational consumer. It was hoped that the Colloquium program would provide a guide to the problems, both present and implied, in current trends of financing higher education and would raise questions regarding the future that the participants could carry back to their own institutions. The role of the speakers, then, was not to present the results of research, but to present and discuss stimulating issues and assist the financial aid officers in looking at some of the implications for the future. That the speakers succeeded in this endeavor I think there can be little doubt.

I will not try to summarize the papers that were presented at the Colloquium and that now appear in this volume. To do so would not do justice to the presentations, for what one person views as important may be entirely irrelevant to another. It may be helpful, however, to review the framework of the program in which the papers were presented.

The initial address "Broadening the Socioeconomic Base of Higher Education in an Era of Rising Costs," by the Honorable Peter H. Dominick, Senator from Colorado, and the paper by Professor Seymour Harris on the economics of higher education, provided for discussions in the relatively broad area of the economic problems of higher education.

From this broad overview there followed discussion of the ways higher education can be financed, in view of the continued rise in the cost of education and society's desire to make higher education more accessible.

Of great concern, with respect to student accessibility to higher education, is the pricing problem of higher education and its concomitant effects on institutions, student choice, and the socioeconomic mix of the student body. It is to this area that the papers presented by Allan Cartter and Fred Glimp were directed. As pointed out in the discussions that followed these papers, some source of funds other than parental income and college endowment must be used if access to higher education is to be broadened.

Given the fact that the resources of society must be used in the support of higher education if accessibility is to be broadened, what is the rationale for society's investment? Economists and sociologists have long been interested in the economic and social returns to the individual and to society that result from investment in higher education. There is

little doubt that there is some return from this kind of investment, and this reason is often advanced in support of proposals to rely upon long-term credit to the individual as the means of financing higher education. It was within this framework that Lee Hansen presented his paper. He left the thought with the Colloquium participants that, while there is a return to society and the individual, reliance on quantitative figures may be misleading, for there is much more work to be done in this area.

From the discussion of the rationale for society's investment, the participants progressed to discussions of the actual investment that is taking place within the public sector in the support of higher education and the broadening of accessibility to higher education. At the same time, alternative measures and future implications must also be of concern.

The United States government has long been a major provider of funds in support of education at all levels. Historically, the support has been directed toward the institutions in terms of grants, appropriations, tax support, and a host of other means. With the growing emphasis on accessibility to higher education for more of America's youth has come an increasing support of programs devoted to student financial aid. The interest of the federal government in educational opportunity was viewed by Peter Muirhead of the Office of Education in his discussion of federal financial aid programs. Within the area of state and local support of higher education, Selma Mushkin raised many questions for the future by projecting the need for expenditures in the decade ahead and the requirements that this expenditure will impose on the financial structure of state and local governments.

While current support of higher education by government is higher than ever before, a feeling exists that much more support is needed. An alternative solution that has been proposed, in lieu of increased direct federal support, is the provision of tax credits for educational expenditures. The pros and cons of such an approach to educational financing and its implications for the future are the target of the papers presented by Roger Freeman and Edwin Young. That the subject proved interesting to the Colloquium participants was demonstrated by the fact that the question and answer period continued long past the normal hour for adjournment.

The final phase of the Colloquium was devoted to some implications for the future in existing student financial aid programs. The growing proliferation of long-term credit for student financing of higher education has become of increasing concern to financial aid officers, and to institutions of higher education. As students continue to make substantial investments in current education from future repayments, what are the implications with respect to individual students and the institutions? In his paper relating to this area, Jack Critchfield gives financial aid officers great food for thought. Although concern has been expressed over the proliferation of loan funds, the judicious use of loans, in combination with other forms of financial assistance, is firmly entrenched in the student financial aid program. Consequently, the availability of funds for the purposes of long-term student credit is of importance. With increasing emphasis being placed on the commercial banking systems as the provider of funds for student credit, the effect of monetary policy on the ability of the banks to make loans is of great interest to financial aid officers. Many implications for the future were presented by Eliot Swan in his discussion of monetary policy and its effects on the financing of higher education.

An area of concern to institutions of higher education and to student financial aid officers is the effect on private philanthropy of the expanding role of government in the provision of student financial aid. The discussion by Robert Kreidler within the framework of support to higher education provided great insight.

While this summary has briefly sketched the framework of the Colloquium and the individual papers collected in this book, there is no way to reflect the discussions and interchanges, in both formal and informal settings, that took place among the participants in the Colloquium. That those who came were interested was evidenced by the fact that there was full attendance at all the sessions, in spite of the many diversions offered by the meeting place.

As director of the Colloquium, I would be remiss if I did not express my appreciation to the speakers for their excellent presentations, to the participants for their warmth and responsiveness, and to the staff of the College Scholarship Service for attending, in such a competent way, to the myriad of administrative details that are involved in such a meeting.

JAMES L. BOWMAN
Director of the Colloquium

April 1967

The economics of higher education

by SEYMOUR E. HARRIS

Education in relation to the economy's needs

One of the most common arguments for raising the level of education is that the nation's economy requires more men and women with more education. For example, in the United States unemployment is much higher for people who have fewer than eight years of education than it is for those who have some college education – that is, 1 to 2 percent for men and women in the professions, and as high as 12 percent for unskilled workers.

It is estimated that in the United States from 1960 to 1975 an additional 5 million professional workers and 2.5 million in the managerial and executive category will be needed – all of whom, it is assumed, will require higher education. In recent years, the number of scientists has been doubling every 10 years. The number of workers in manufacturing is leveling off: from 1947 to 1962 the rise was only 8 percent, whereas in other nonagricultural employment the rise was 35 percent. In the service or tertiary industries the need for college-trained men and women is much greater than in manufacturing.

These facts suggest that the number of school dropouts be reduced and more college-trained men and women produced. But in the United States, government stops short of total planning of its economy and of training manpower to meet estimated future needs. Government only points out the likely need by estimating future incomes, spending patterns, changes in productivity, and the related needs for manpower. By this means it suggests changes to the private portion of the economy.

Government tries to influence educational patterns, to some extent, by providing loans and scholarships, and by subsidizing capital expenditure to raise the output of scarce manpower. It does this, for example, by estimating the number of physicians needed, by helping to finance additional medical schools, and even by giving preference to the sciences in the allocation of aid. But that is as far as government dares to go, and there is much opposition to the substantial financing of these needs.

The number of dollars, or the proportion of the real resources of a nation that go into higher education, depends upon many variables. The following relevant factors should be considered.

Expenditures are related to the income of the nation and especially the per capita income: the larger the surplus over what is needed to cover the essentials of life, the greater the proportion of income likely to be spent on higher education.

The amount spent on primary and secondary school education is also relevant, both because earlier education is a stepping-stone to higher education, and because the more spent on elementary and secondary education, the less is available for higher education. Educators should not think in terms of a fixed amount of resources available for education, however. Even if more money is spent on preparatory education, the resultant increased interest in higher education may result in larger expenditures for all education.

The amount spent on higher education also depends on the attitude of the people toward the extent of public involvement. When a nation taps private resources, the result may

EA 001 177

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

well be increased resources going into higher education, or a more reluctant attitude toward such expenditures by government. In the United States about 40 percent of the expenditures on higher education are for private education (although a significant percentage, about one quarter of these expenditures, come from government). Perhaps because of these large private contributions to education, total and per capita expenditures for higher education are proportionately higher in the United States. An examination of the relative contributions from public and private sources, however, shows that the availability of private funds for education tends to discourage public outlays. The states in which private higher education is most highly developed – for example, Massachusetts, New Jersey, New York, Pennsylvania, and Connecticut – are also the states in which public higher education has made the least progress.

Expenditures on education and national income

Expenditures on public schools in the United States were more than 70 times higher in 1960 than in 1900, while national income, during this period, was less than 20 times higher. The statistics for higher education are even more striking: the educational and general income of institutions of higher learning was 178 times higher in 1960 than in 1890, and the gross national product was only 53 times as high. Despite the extraordinary progress made by institutions of higher learning, on a per capita basis the increase is disappointing: 7 times as much for income per student, and 17 times as much for gross national product per capita. In other words, the increase in expenditure on higher education per student was less than that of the economy as a whole.

Experience in the United States shows a fairly close relationship between the size of the population and unit costs. The states that have a small population are those which spend a relatively large amount of money on education. In the late 1950s no fewer than 11 states paid more per capita for public higher education in relation to per capita income than California: Alaska, Arizona, Colorado, Mississippi, North Dakota, Montana, New Mexico, Oregon, Utah, Vermont, and Wyoming. These are states that cover large areas but have small populations. These and other statistics suggest that relatively more is spent on education by the states that have low per capita incomes.

Obviously, price movements alone do not explain the trends in educational expenditures, and such factors as attitudes toward education, manpower needs, the tax structure, the responsibilities for education among different levels of government, per capita income, attitudes toward government, and the contribution of private education all play a part. In general, when educational expenditure is small in relation to the gross national product, the tendency will be for such expenditures to rise relatively more.

Determinants of expenditures on education

The amount of public expenditures on education is determined by the number of young people of school or college age and the proportion that attend school or college. This proportion depends on the general standard of living, the geographical distribution of schools and colleges, attitudes toward education, the availability of private resources, manpower needs, and the unit costs of education. These factors, in turn, are related to standards, productivity, the size of the country, and the population groups. In the United States, unit costs tend to be high, *ceteris paribus* (all other things being equal), when the population is small. In general, the increases in expenditure on education are greater according to expected increases in the population. The more the student-population ratio and the teacher-

student ratio go up, and the larger the increase in national productivity, the more the expenditure for education increases.

Direct subsidies versus scholarships

The problem of financing higher education is difficult, especially because the bill for higher education tends to rise much more than total state and local expenditures. This situation is in part the result of the rising relative financial burden put upon state government. It is estimated that over a period of little more than 10 years (1965–75) state and local expenditures will rise much less than expenditures for higher education. One has to distinguish the rise of costs according to various models: constant cost (that is, a model that relates costs to numbers); rising costs per student (that is, adjustment of costs to rising unit costs in the economy); improvements in education; and a continuation of past trends. One improvement model yields a rise of more than 100 percent from 1963–64 to 1974–75 for higher education, and about 75 percent for state and local expenditures. But on the basis of trends in earlier years, the relative cost rises are 250 percent and 113 percent respectively for higher education and state and local expenditures.

Student financial aid is not a major item in the financing of higher education. In a recent year, financial aid accounted for only 4 percent of educational and general expenditures, and for only 15 percent of tuition payments.

The major contribution of institutions toward financing higher education for students comes from the direct subsidies of the institution – that is, the excess of costs of education per student over the tuition charge. The difference is accounted for by endowment earnings, gifts, contributions, or, in public institutions, through the taxing mechanism.

Another factor accounting for the modest use of financial aid is the interest of many institutions of higher learning in obtaining help for the institution rather than for the student. Land-grant colleges, in particular, have sought direct federal aid for the institution rather than for the student. Because of rising demands the public institutions are under pressure to accept an increasing share of enrollment, and they are embarrassed by inadequate funds. They therefore seek larger direct subsidies from the government.

One should not, however, underestimate the significance of the few hundred million dollars of student aid in America. Tuition payments increased from $201 million during the prewar years to $1,505 million in 1961–62. That this increase has been possible is explained in part by the rise of student aid expenditures over the same period to $200 million by institutions of higher learning, and considerably more if outside help is added. The higher price of education for all students is justifiable, if students who have talent and need can be helped with scholarship funds.

Financial pressures on public institutions of higher learning

The University of California, which now has about 90,000 students and a budget of about $650 million, can serve as an example of the effect of financial pressures. For the year 2000, I estimate an enrollment of about 320,000 at the university, a rise primarily associated with the increase in the population of California – from 18 to more than 40 million – and secondarily, with a continued rise in the proportion of young people of college age at the university. (To some extent, this increase will be contained by diverting more students to community and four-year colleges.)

The rise in costs is related not only to the increase in numbers, but also to the rise of costs for each student. Assuming that the cost for each student will increase by 4 percent a year, in stable dollars – a rise substantially less than that of the last 15 years – then by the year 2000, unit costs will have increased

by about 300 percent. (Four percent compounded over 35 years equals 400.) Hence the budget of the University of California would rise to about $4 billion,[1] or an amount roughly three quarters of the 1960 budget for all institutions of higher learning. This is a rather frightening projection. Unless there are striking advances in productivity – for example, improved use of plant, discouragement of proliferation of courses – the rise of unit costs will indeed be a serious matter. To bring these outlays down to a manageable figure, productivity should rise as much as in the economy generally, say 3 percent a year.

The costs of public and private institutions of higher learning

Institutions of higher learning can make it easier for students to obtain a college education by keeping costs low. Lowered costs may be achieved by efficient operation, by lowering of the quality of the education provided, by outright subsidies to such institutions, and by providing more institutions of higher learning that are near the homes of students.

Much will depend on the level of support for higher education provided by government. In the United States, public institutions of higher learning accommodate more than 60 percent of the students and represent about 60 percent of the total education budget. Under the stress of rising costs, and demands for space, the public institutions of higher learning become increasingly important. In 1960, a student at a public institution of higher learning had to pay, on the average, about $200 for tuition and other fees, as compared to almost $900 at an independent institution of higher learning. If a student lives near a public institution of higher learning, the cost of his education will be reduced to a minimum, but if he lives far away it may be more expensive for him to attend a public institution of higher learning than a private one near home. (As an aside, it is a well-known fact that students who live near an institution of higher learning are more likely to attend than those who live beyond commuting distance.) Consequently, there is an increasing awareness of the fact that one way of democratizing higher education is to establish institutions of higher education close to population centers. The early tendency to establish land-grant colleges away from population centers in the United States is gradually being corrected. California, for example, has made great strides in this area by planning to provide institutions of higher learning close to the residential centers in which almost all high school graduates live.

The size of the educational establishment also influences costs – if the unit is small, costs per student tend to be high. In the United States, the average university has an enrollment of 7,582, and although unit costs are high, the explanation is found in the high standards and advanced instruction provided by universities.

The student-teacher ratio may also be a relevant factor, because teaching costs represent about one-half of total costs and two-thirds of the current costs of education.

The sources of finance of higher education

In meeting the costs of education, institutions of higher learning depend on government grants, gifts from private philanthropy, endowment income, and fees from students. In recent years, institutions of higher learning have tended to depend relatively less on endowment income and more on current private philanthropy. They are also relying more heavily on government funds.

Endowment income, for example, dropped from 17 percent in 1909–10 to 4 percent of total income in 1961–62. Why has endowment income become so much less important? First,

---

1. 4 times 4 times $250 million. I include only the state budget of 1967–68.

because income from investments has not risen as much as prices. Second, because enrollment has increased greatly. Third, because of the rising percentage of students enrolling in public institutions of higher learning.

The contribution of tuition

The contribution of tuition in relation to total income depends on numerous factors: the relative contribution of public and independent institutions of higher learning in meeting the demand for education, the stability of the price level, and the availability of scholarships and loan funds. When other sources of income become available to institutions of higher learning, there will be less dependence on tuition.

The relevance of the stability of the economy is of special interest. In periods of great inflation the value of contributions of tuition to an institution tends to fall. In most inflationary periods, college authorities have been slow to adjust their tuition to the rising price level. The rise of tuition in the 1940s, for example, was minimal, compared with the 100 percent increase in prices and the much greater rise of per capita income. A college education had become a great bargain, falling in costs to about one-third compared to per capita income. Insofar as the charges for tuition lagged behind prices and per capita income, the students and their families benefited from the exploitation of the faculty by the institutions of higher learning. One can readily conclude that faculty tends to lose economic status in periods of inflation, when incomes lag behind the rise of prices and even behind the rise of tuition. Because the cost of tuition also lags behind the increase in prices, teachers' salaries experience a double lag.

Public money

The amount of money available from public sources to meet the increasing needs of higher education will depend, of course, upon the weight of other demands on the public treasury. In the years since the end of World War II, state and local governments have been under great pressure to spend funds for schools, highways, urban development, hospitals, and so forth. State and local expenditures and debt have grown at a rate much greater than federal outlays and debt.

Because of this rising pressure on state and local government, the federal government, as a source of financial assistance, attracts increasing attention. The expenditures of the federal government on higher education have, in recent years, been on the rise. The 1968 budget (year ending June 30, 1968) reveals a rise of federal expenditures from $448 million in fiscal year 1966 to $1,968 million in fiscal year 1968.

But the contribution of the federal government toward the costs of higher education is not likely to increase at as rapid a rate in the next 10 years. Besides, the major federal outlay is for research. Hence a given subsidy by the federal government will not yield a corresponding advantage for higher education. Many colleges, for example, will want money for salaries but get help for research. The rising costs of the defense budget, together with heavy commitments for private investments, have produced a growing fear of inflation and a rising demand that the federal government watch its expenditures. These factors are currently being felt by the Administration, which is seeking to finance part of the higher education expenditures through the medium of the private credit market (the pool-participation approach) rather than through the budget.

The prevailing fiscal policy of tax cuts in relation to expenditures as a means of stimulating the economy will affect future expenditures for higher education. It is because of this fiscal policy that expenditures for higher education are likely to be smaller than they otherwise would be.